

WHAT IS CLAIMED IS:

1. A combustion control device comprising clock means for clocking a predetermined time from a point of time at which a microcomputer starts an
5 ignition sequence of opening an on-off valve for supplying a gas to a gas burner and operating an ignition plug, and provided with safety means for detecting an ignited state of the gas burner at a point of time at which said clock means clocks the predetermined time and compulsorily closing the on-off valve when the gas burner is not in the ignited state, separately from the
10 microcomputer,
wherein the microcomputer detects an opening and closing state of the on-off valve as a result of compulsorily operating the safety means to perform an operation check of the safety means, before operating the ignition sequence.
- 15 2. The combustion control device according to claim 1,
wherein when the safety means is compulsorily operated, the time clocked by said clock means is shortened.
3. The combustion control device according to claim 2,
20 wherein said clock means is constituted to contain a resistor so that the clocking time becomes shorter as a resistance value of this resistor becomes smaller, and when the safety means is compulsorily operated, this resistor is short-circuited, or this resistor is changed to a resistor with a smaller resistance value, whereby the clocked time is shortened.
- 25 4. The combustion control device according to claim 1,
wherein the on-off valve is opened and closed by a relay, and a transistor turned on and off by the microcomputer and a transistor turned on and off by the safety means are connected in series to a relay coil of this relay.
- 30 5. The combustion control device according to claim 2,
wherein the on-off valve is opened and closed by a relay, and a

transistor turned on and off by the microcomputer and a transistor turned on and off by the safety means are connected in series to a relay coil of this relay.

6. The combustion control device according to claim 3,

5 wherein the on-off valve is opened and closed by a relay, and a transistor turned on and off by the microcomputer and a transistor turned on and off by the safety means are connected in series to a relay coil of this relay.

7. The combustion control device according to claim 1, further
10 comprising:

a thermocouple for detecting the ignited state of the gas burner, which is placed in a vicinity of the gas burner.

8. The combustion control device according to claim 2, further
15 comprising:

a thermocouple for detecting the ignited state of the gas burner, which is placed in a vicinity of the gas burner.

9. The combustion control device according to claim 3, further
20 comprising:

a thermocouple for detecting the ignited state of the gas burner, which is placed in a vicinity of the gas burner.

10. The combustion control device according to claim 4, further
25 comprising:

a thermocouple for detecting the ignited state of the gas burner, which is placed in a vicinity of the gas burner.

11. The combustion control device according to claim 5, further
30 comprising:

a thermocouple for detecting the ignited state of the gas burner, which is placed in a vicinity of the gas burner.

12. The combustion control device according to claim 6, further comprising:

a thermocouple for detecting the ignited state of the gas burner, which
5 is placed in a vicinity of the gas burner.